



State of Ohio Environmental Protection Agency

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October 1, 1996

Re: Licking County
Granville
Application No. CD-1071-WS
Community Water System, 4500612
Detail Plans of Village of Granville
Wellfield, PW4 and 12-inch Water Main, Site
Plan, Granville, Ohio: Replacement of Well
No. 1
Plans Received June 11, 1996;
Revised Plans Received September 20, 1996
From Metcalf & Eddy

RECEIVED

OCT 02 1996.

OHIO EPA/CDO

Mayor and Council
Village of Granville
141 East Broadway
Granville, OH 43023-1514

EPA Region 5 Records Ctr.



379563

Ladies and Gentlemen:

The Ohio Environmental Protection Agency has reviewed the enclosed plans submitted pursuant to Ohio Revised Code Sections 6109.07 et. seq., or accepted the certification of plan review by an authorized professional engineer pursuant to a contract therefore. These plans are approved subject to the condition of compliance with all applicable laws, rules, regulations, and standards. The applicant is responsible for obtaining all other necessary approvals, waivers or releases required by state, federal or local law prior to implementing this plan. Further, all construction must be supervised by a registered engineer, as required by law, or expert qualified in such work.

The enclosed report or project summary sheet(s) contains a description of the facilities approved which may include information regarding approved operating rates, capacities, and requirements, and is incorporated herein.

The owner shall provide for the proper maintenance and operation of the water supply and distribution system.

Well No. 4 (PW-4) are hereby designated as ground water in accordance with definition (3).

Sanitary control of the area shall be maintained within a 300 foot radius of each water supply well.

The proposed facility may be constructed only in accordance with plans approved by the director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the agency. Any deviation from the approved plans or the above conditions may lead to sanctions and penalties provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities prove to be inadequate or cannot meet applicable standards.

George V. Voinovich, Governor
Nancy P. Hollister, Lt. Governor
Donald R. Schregardus, Director

Mayor and Council
October 1, 1996
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Should there be any questions regarding the requirements, meaning, or interpretation of any of the above which we may clarify, please contact the Division of Drinking and Ground Waters, Central District Office, Ohio Environmental Protection Agency.

You are hereby notified that this action of the director is final and may be appealed to the Environmental Board of Review pursuant to Section 3745.04 of the Ohio Revised Code by any person who was a party to this proceeding. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed with the Environmental Board of Review within thirty (30) days after notice of the director's action. A copy of the appeal must be served on the director of the Ohio Environmental Protection Agency and the Environmental Enforcement Section of the Office of the Attorney General within three (3) days of filing with the board. An appeal may be filed with the Environmental Board of Review at the following address:

Environmental Board of Review
236 East Town Street, Room 300
Columbus, OH 43266-0557

Sincerely,


Donald R. Schregardus
Director

DAS/pls

cc: Central District Office
Division of Drinking and Ground Waters, Central Office
Licking County Health Department
Metcalf & Eddy

**REPORT ON DETAIL PLANS FOR THE VILLAGE OF GRANVILLE WELLFIELD
PW4 AND 12 INCH WATER MAIN, SITE PLAN, GRANVILLE, OHIO
GRANVILLE TOWNSHIP - LICKING COUNTY**

On February 7, 1996, detail plans for the Village of Granville Wellfield, PW4 and 12 inch water main site plan, Granville, Ohio were received. The drawings and specifications were prepared by Metcalf and Eddy Consulting Engineers. Additional information was received from Mr. Roger Jacobsen of Metcalf and Eddy on September 20, 1996.

General: The Village of Granville water system serves a population of approximately 5,000 people. The Village's water treatment plant also serves the Village of Alexandria. Currently, the Village has an average daily production rate of 580,000 gpd (403 gpm) and a peak flow 850,000 gpd (590 gpm). The water treatment plant was designed for an average flow of 2.0 millions gallon per day (1,389 gpm). The system was designed to operate with three raw water supply wells. Only Well No. 2 and the recently approved Well No. 3 are currently in service. Well No. 2 is a 12 inch diameter well equipped with a submersible pump rated at 1,080,000 gpd (750 gpm). Well No. 3 is also a 12 inch diameter well equipped with a submersible pump rated at 1,008,000 gpd (700 gpm). The proposed Well No. 4 (PW4) will replace Well No. 1. The Village water treatment plant consists of gravity tray aeration, followed by rapid mix, flocculation, chlorination, settling, recarbonation, rapid sand filtration, chemical addition (hydrofluosilicic acid), and detention tanks. The well site was approved by the Ohio EPA on January 30, 1996.

Location: The new well will be located approximately 612 feet southwest of new Well No. 3, just west of the water treatment plant, at 445 Palmer Lane, in the Village of Granville, Licking County.

Raw Water Analysis: The chemical analysis taken from this well showed the water to have a total hardness of 458.9 mg/L (as CaCO_3), total residue of 524 mg/L, iron of 1.420 mg/L, and manganese of 0.051 mg/L. The total residue, iron, and manganese content in the raw water exceeded the secondary maximum contaminant level and the hardness is well above the recommended range of 120 mg/L to 180 mg/L (as CaCO_3). In addition, two bacteriological samples were taken and their results were total coliform negative (safe). A Volatile Organic Chemical (VOC) analysis was also run and no VOC compounds were detected.

Water Supply Well: The proposed well will sit in an open area. It will be approximately 92 feet deep. The casing will be 12 inch in diameter, standard black steel pipe, with a wall thickness of 0.375 inches and it will extend to a depth of 67 feet. The well casing will terminate 1.5 feet above grade and it is provided with a watertight cap. The well's vent line will be extended approximately 16 feet above grade to protect it from the 100 year flood. The well vent will be screened and will be anchored to a pole to protect it from breaking off during flood conditions. The borehole size will be 12.0 inches in diameter and it will extend to a depth of 92 feet. A 12 inch NSF approved pitless adaptor with a 6.0 inch discharge connection and internal check valve will be installed approximately 4.0 feet below grade. The adaptor is similar to the one manufactured by Baker Monitor PS Series, Model 4PS1214WSWE06T6. A 12 inch, stainless steel, wire wrapped, well screen, with a slot size of 0.100 inches will be set between 65 feet to 92 feet. The well will be equipped

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with a two stage, submersible pump, capable of delivering 700 gpm when pumping against a T.D.H of at least 105 feet. The pump will be driven by a 25 hp, 460 volt, 60 hertz, 3 phase motor. As part of the application a well log was submitted. A 72 hour pumping test with a discharge rate of 900 gpm was conducted. The well driller indicated that the water level drawdown was 14.8 feet from a static level of 15.6 feet. The submersible pump will be set at 63.0 feet below ground level.

Water Line Extension: Approximately 612 feet of 12 inch PVC pipe (AWWA C-900) will convey the raw water from the well to the existing raw water line of Well No. 3.

Construction Cost: The estimated construction cost is \$ 87,277.00

It is recommended that the plans be approved subject to the usual conditions.

Jose' R. Quinones, E.I.T.
Environmental Engineer
Div. of Drinking and Ground Waters
Central District Office

**OhioEPA**

Initials _____

Time _____

CENTRAL DISTRICT OFFICE

Telefax Cover Letter

PLEASE DELIVER THE FOLLOWING PAGES TO:

NAME: Sinta Ahmed FAX NO.# 312-886-4071COMPANY: US EPA Region VFROM: Fred Myers PH.# ~~728~~ 614 728 3830OF THE OHIO EPA, CENTRAL DISTRICT OFFICE, FAX NO.# (614) 728-3898TOTAL NUMBER OF PAGES INCLUDING COVER LETTER: 5

SENDER/SECRETARY NAME: _____

DATE _____ TIME _____

COMMENTS: OEPA Approval letter for PW-11.

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